

WHAT IS CLAIMED IS:

1. Wire sawing process comprising the sawing of at least one prismatic piece to be sawed with a substantially square or rectangular base at least by means of a layer of wires stretched between at least two wire guide cylinders whose axes are parallel to a working plane and held in position by grooves provided on the surface of the wire guide cylinders which define the interval between the wires of the layer of wires, hence the thickness of the sawed slices, the wires of the layer being adapted to move with alternating or continuous movement while bearing against the piece or pieces to be sawed fixed on at least one support table by means of an intermediate plate, the sawing process being carried out by relative advancing movement between the piece to be sawed and the layer of wires, wherein the piece or pieces to be sawed are fixed on the support table such that the prismatic surfaces of this piece directed toward the layer of wires forms a predetermined angle of inclination with said working plane along an intersection line parallel to the axes of the wire guide cylinders, the size of this angle of inclination being fixed such that on the one hand the beginning of sawing takes place against a prismatic edge of the piece or pieces to be sawed and, on the other hand, at the end of cutting the wires of the layer of wires are prevented from penetrating from a given intermediate plate into the piece to be sawed fixed on this given intermediate plate.

2. Process according to claim 1, wherein there are fixed at least two prismatic pieces to be sawed on the support table, that the wire is given a continuous movement

and that said angles of inclination are fixed such that they open in a direction opposite the direction of movement of the wire and such that the sawing of the pieces begins with the prismatic edge located downstream relative to the 5 direction of movement of the wires of the layer of wires.

3. Process according to claim 2, wherein different values are fixed for the two angles of inclination, the angle of inclination of the piece to be sawed located 10 upstream of the path of the wires being greater.

4. Process according to claim 1, wherein at least two prismatic pieces to be sawed are fixed on the support table, that the wire is given an alternating movement, and 15 that the angles of inclination are fixed such that they open in opposite directions relative to each other.

5. Process according to claim 1, wherein said angle of inclination is fixed at a value comprised between 0.5° 20 and 7°, preferably between 1° and 3.5°.

6. Wire sawing device comprising at least one layer of wires stretched between at least two wire guide cylinders whose axes are parallel to a working plane and 25 held in position by grooves provided on the surface of said wire guide cylinders which define the interval between the wires of said layer of wires, hence the thickness of the sawed slices, the wires being adapted to move with an alternating or continuous movement while bearing against at 30 least one prismatic piece to be sawed with a substantially square or rectangular base fixed on a support table by means of an intermediate plate, means being provided to

carry out a relative advancing movement between the piece to be sawed and the layer of wires, wherein  
the sawing device comprises inclination members permitting fixing the piece or pieces to be sawed on the support table such that one of the prismatic surfaces directed toward the layer of wires forms a predetermined angle of inclination with said working plane along a line of intersection parallel to the axes of the wire guide cylinders, this angle of intersection being fixed such that on the one hand the beginning of sawing takes place at a prismatic edge of the piece or pieces to be sawed and, on the other hand, at the end of cutting the wires of the layer of wires do not penetrate from a given intermediate plate into the piece to be sawed fixed on this given intermediate plate.

7. Device according to claim 6, wherein the support table is arranged to receive at least two pieces to be sawed, the wire being moved with a continuous movement, and by the fact that the inclination members are arranged such that said angles of inclination open in a direction opposite to the direction of movement of the wire and such that the sawing begins with the prismatic edge located downstream relative to the direction of movement of the wires of the layer of wires.

8. Device according to claim 7, wherein the inclination members are arranged such that the angle of inclination of the piece to be sawed located upstream of the path of the wires is greater.

9. Device according to claim 6, wherein the support table is arranged to receive at least two pieces to be sawed, the wire being moved with an alternating movement, and by the fact that the inclination members are arranged such that the angles of inclination open in opposite directions relative to each other.

10. Device according to claim 6, wherein the inclination members are arranged to obtain angles of inclination comprised between  $0.5^\circ$  and  $7^\circ$ , preferably between 1 and  $3.5^\circ$ .

11. Device according to claim 6, wherein the inclination members are constituted by an angular wedge interposed between the support table and the piece to be sawed or the intermediate plate.

12. Device according to claim 6, wherein the inclination members are constituted by a pivotal member mounted on the support table or an ingot holder fixed on the support table, the angular position of this pivoting member being adapted to be adjusted and fixed by means of at least one stop member.